BUREAU OF ENVIRONMENT
CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting
DATE OF CONFERENCE: March 20, 2019
LOCATION OF CONFERENCE: John O. Morton Building
ATTENDED BY:

NHDOT
Matt Urban
Sarah Large
Andrew O'Sullivan
Ron Crickard
Arlene Allen
Marc Laurin
Bob Juliano
Jason Tremblay
Keith Cota
Don Lyford
Rick Faul
Andrew Czachor
Maggie Baldwin
Tobey Reynolds
Josh Lafond
Kathy Corliss
Shaun Flynn

ACOE
Mike Hicks

Federal Highway
Jamie Sikora

NHDES
Lori Sommer
Eben Lewis
Chris Williams

NHF&G
Carol Henderson
Heidi Holman
Brett Ferry

NHB
Amy Lamb

Consultants/Public Participants
Mike Leach
Gerard Fortin
Adam Stockin
Jonathan Pitre
Seth Hill
Brian Colburn
Christine Perron
Burr Phillips
Greg Howard

PRESENTATIONS/ PROJECTS REVIEWED THIS MONTH: *(minutes on subsequent pages)*

(When viewing these minutes online, click on a project to zoom to the minutes for that project)

NOTES ON CONFERENCE:

Postpone the finalization of February 20, 2019 Meeting Minutes
Matt Urban indicated that minutes had note come in yet for the two projects from last month's meeting. M. Urban and Sarah Large advised that we needed to postpone the finalization of the minutes.

Bedford-Manchester-Londonderry, #11512 (DPR-F-0047(001), A000(203), A000(256)
NH Fish and Game is seeking access to NH DOT parcel #'s 1067, 1058, 1050 to conduct habitat management for the New England cottontail rabbit (NEC). NEC are a state endangered species that depends on dense brushy young forest habitat. Londonderry is one of two areas in NH were they occur and is within a focus area for NEC habitat management. The proposed project would manage 2.5 acres of mature trees. The area is adjacent to the ~10 acres previously managed in 2007-08 behind the Stonyfield plant. The previous management was very successful and NEC began using the habitat 3-4 years after it was cut. If managed, the project area would enhance the existing patch of habitat for NEC by increasing the amount of habitat available. Management would consist of cutting and possibly removing trees from the site. At a minimum some brush piles will be left to serve as ground cover for NEC.

There is currently a logging contractor working on site clearing trees in the runway approach zone of Manchester airport. Fish and Game was hoping to work with this contractor to get a cost savings on this project since it is a relatively small area. If the timing doesn't work out that's ok, they will pursue conducting work at a later date, possibly including this project with another future project in the area.

Part of the project area is mapped as forested wetland and is where drainage is directed from the surrounding industrial park lots. DES was ok with cutting in these areas, however, requested that there be no rutting or uprooting of stumps in the area.

Lori Sommer asked that we send over the deed restriction language to her. No one could recall the restrictions.

Amy Lamb indicated the NHB report number is NHB19-0434.

No net income calculation:

> There will be no net income generated from cutting the project area. The Contractor quoted the area as costing $3,500 to cut while he is in the area doing other work. See correspondence below.
>
> *Brett,*
> *As long as I can do it at the same time as the DOT lot I can do it for a lump sum of $3500. I did speak with Jeff at Stonyfield today and he is on board with cutting the wood inside the fence if you are willing to pay for the removal and reset of the fence. Should I get a price to remove and reinstall about 50lf of fence?*
> *Thanks,*
> *Sean McDonald, Canterbury Timber Company LLC, 603-234-5889*

Londonderry Tax map 14, lot 39, parcel 1067
Londonderry tax map 14, lot 29, parcel 1058
Londonderry tax map 14, lot 30, parcel 1060

This project has been previously discussed at the 1/20/2016 Monthly Natural Resource Agency Coordination Meeting.

Lyme-Thetford, #14460 (A000(394))

Gerry Fortin introduced the project and noted it was last before the committee in 2014. Mike Leach presented an overview of the project:

- Through-truss (Parker) bridge built in 1937
- Eligible for National Historic Register
- Consists of two 230-foot spans
- Bridge roadway is narrow at 21 feet between curbs
- Bridge is on NHDOT Red List (since 2013)
- Carries approximately 2100 vehicles per day
- Current 15-ton load posting. NHDOT Forces made repairs in fall of 2014, but posting remains due to overall poor condition of the floor system

Preferred Alternative for Addressing the Deficient Bridge Is Rehabilitation. Rehabilitation summary:

- Replace the pier
- Repair the abutments
- Replace portions of the floor system framing
- Replace concrete bridge deck (roadway)
- Replace the bridge railing and steel curb
- Clean and paint all steel truss components
- Includes limited approach roadway work as necessary to provide smooth transitions to the new bridge deck

Work completed to date includes:

- Natural Resources meeting in 2014
- Public information meetings in Lyme, NH in 2014 and Thetford, VT in 2015
- Cultural Resources meetings (4) in 2015 and 2016
- Phase 1A and 1B Archaeological assessment of Access site from Vermont in 2016
- Memorandum of Agreement (MOA) for impacts to historic structure executed in July 2017
- USFWS I-Pac with Dwarf Wedgemusssel (DWM) and Northern Long-eared Bat (NLEB) listed
- DWM scuba survey conducted in August 2018 with no findings of listed species
- DWM No Effect memorandum by NHDOT to USFWS dated Oct 2018
- NLEB bridge survey and access site location conducted in August 2018 and No Effect Determination by USFWS Sept 2018
- Updated NHB18-3028 by NHDOT – Sept 2018 with no listing
- Floodway coordination with NH Office of Energy and Planning (OEP) in 2016 with no concerns
- Coordination with VTrans Natural Resources with listing of DWM and NLEB – June 2016
- NEPA document completed and approved by FHWA January 2019
- Coordination with Army Corps-NH and VT on project in Fall 2018 and General Permit (GP) conditions.

Current status - working on wetland permit impacts and application to conduct rehabilitation work: Project wetland impacts are:

- VT impacts for temporary trestle access and repairs to bridge abutments totals to 27,900 SF
    - 26,600 SF to river (R2UBH) of temporary impact associated with the trestle construction;
    - 1,300 SF of Bank impact (110 LF) for access and to rehabilitate the bridge abutments
- NH temporary and permanent impacts total to 51,083 SF with:
    - 50,200 SF to river (R2UBH) of temporary impact associated with the trestle construction;
    - 358 SF permanent impact (50 LF) for the larger new pier;
    - 525 SF of Bank impact (70 LF) to rehabilitate the bridge abutments

Bridge Rehabilitation construction will be over 2+ construction seasons to begin in the Fall of 2019. Work will require the bridge to be closed and traffic detoured north and south. The bridge will be slid apart to remove the existing pier and construct a new pier in the same location and slid back together in the first season+. The second season will close the bridge again to encapsulate for painting. Anticipate completion in Fall 2021.

Next steps for the project:

- Address NHDOT-BOE review comments of draft permit application and complete NHDES wetland application. Provided to NHDOT-BOE for submittal.
- Coordination with Vermont Agency of Natural Resources (VTANR) for Stream Alteration permit for impacts for temporary trestle access and repairs to bridge abutments
- Obtain project permits: NHDES, ACOE-NH, ACOE-VT, VTANR
- Finalize contract documents for bidding
- Complete MOA mitigation items prior to construction completion
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Michael Hicks of ACOE-NH noted this was a federal highway project and lead. He noted that the US Coast Guard information stated it was exempt and the ACOE would not require a Section 10 permit. Mike asked for a cross section of the proposed river work for fill below the Ordinary High Water (OHW) for information. He noted that the bridge painting work should ensure no pollutants get to the river. He noted the work should fit within the General Permit (GP) requirement for both states (NH & VT). He has coordinated with Mike Adams of the ACOE-VT about the project.

Lori Sommer of NHDES asked if the proposed pier was in the same location as the existing pier. M. Leach noted it was, but the proposed pier is a little larger than the existing, being 4 feet longer and 4 feet wider with a total length of 50 feet and a width of 12 feet.

M. Hicks asked how it would be constructed. G. Fortin noted a cofferdam would be used to remove and construct the new pier.

Jamie Sikora asked why it was wider. G. Fortin noted the proposed pier is two drilled shafts that are enclosed in the pier. Mike noted that since the original pier was constructed, dams have been constructed on the river upstream and downstream of the bridge. The downstream dam has raised the normal water level at the bridge. Construction of the pier similar to the original methods cannot be done due to the higher water levels. The method used for the pier construction allows for the higher water elevations.

Carol Henderson – NHF&G asked if dewatering would be conducted. G. Fortin noted that most of the work can be done without dewatering inside the cofferdam. C. Henderson asked for a copy of the mussel survey. Ron Crickard noted he would send a copy.

Matt Urban -NHDOT-BOE asked if mitigation is required for the additional impacts. L. Sommer asked about the permanent impacts relative to the riprap. M. Urban noted that impacts to the bank would occur, but the impacts are to areas that are currently riprap. G. Fortin noted that the photograph taken after the 1937 construction of the bridge indicates the banks were originally constructed with riprap.
L. Sommer noted that mitigation would not be required for this project.

M. Hicks noted that most of the work on the piers is viewed as self mitigating by the Corps.

This project has been previously discussed at the 3/19/2014 Monthly Natural Resource Agency Coordination Meeting.

Durham, #16236 (X-A0001(202))
Adam Stockin began the meeting with a general description of the project noting that the project involves the replacement of the 15-foot single span bridge over Bunker Creek on US Route 4 in Durham. Project limits are just east of Morgan Way and to the west just before Bunker Lane. The bridge is Priority #26 on the NHDOT Red List. The intent of the project is to address geometric deficiencies on the approach to the bridge, including sight stopping distance from Morgan Way. US Route 4 is an urban arterial carrying 18,000 vehicles per day. It is also a major east-west trucking route, and a well-travelled bicycle route. The project is Design-Build (D/B) (SPS New England with WSP-USA and Comprehensive Environmental Inc.).

He went on to explain that the purpose of the presentation today was to present the D/B Team's Alternate Technical Concept (ATC) compared to the Department's Base Concept (BTC) which formed the basis of D/B proposals and the Wetland Permit Application and to present how the project intends to meet the NHDES Wetland Permit 2018-02051 Conditions. In summary the PowerPoint presentation: showed pictures of the existing bridge and surrounding area; noted that the ATC involves approximately 1600' of roadway work to improve site distances at Morgan Way; the ATC will widen the roadway of the crossing from the existing 30' rail to rail width to 34'; will replace the existing 15' span with a 60' span (BTC proposed 76'), and; the span will be replaced during a five day closure in the summer of 2020. The presentation also showed plan views of the BTC and ATC.

Matthew Lundsted continued the discussion covering the Wetland Permit Conditions noting the proposed project can meet the Conditions and in particular will have:

- No anticipated work in tidal water during restricted season (2/15-6/30);
- Work performed at low tide as much as possible;
- Turbidity curtains installed around the causeway for embankment work, and around the existing structure during the rapid replacement;
- New substructure design (micropiles) above mean high tide elevation;
- Natural substrate channel established using salvaged existing material during low tide within turbidity curtains.
- A pre-construction meeting scheduled.

Gino Infascelli inquired as to the width of the channel of the ATC, and the extent of the riprap into the channel. Matt Lundsted advised the channel will be 40-45 feet in width with 15 feet of natural bottom, which is wider than the current channel opening now. Hydraulically, there is no additional benefits to tidal flushing over 30 feet.

Mike Hicks inquired about the distance of the project and impacts from the center of the Oyster River. It was determined that it is approximately 200'-250' from the channel center.

Lori Sommer inquired about the ARM payment and whether due to the difference between the BTC and the ATC there were any changes. The Department noted that changes are minor, in number only (not type) and they will be processing the ARM payment previously identified.

Gino Infascelli stated DES would likely not have to go back to G&C approval for the ATC changes, though final plans will need to be submitted to the Wetlands Bureau for approval.

Amy Lamb noted that at previous Natural Resource meetings there were discussions about salt marsh restoration and inquired about the status of that. The Department noted that the project proposed the ARM payment in lieu of the salt marsh restoration.

Carol Henderson inquired about the New England Cottontail potential habitat issue and it was noted that further field study by Normandeau indicated no potential habitat present. It was also noted that there was no need to impact the Fish and Game property.

Marc Laurin noted that the Department will need to perform a bat inspection of the bridge prior to construction to satisfy NLEB requirements.

It was noted that the NHDES Coastal Program wished to confirm that the ATC would pass the 100 year storm event and that the design consider seal level rise. The Department indicated that both of these were the case.

Timing of the five day closure was discussed. Keith Cota explained that the D/B contract required a substantial media outreach plan that is in the process of being developed and that the closure will be well advertised and vetted through surrounding communities and UNH. Jonathan Pitre noted that the D/B RFP allowed for a closure of up to 14 days and the D/B Team's proposal gets that down to five days.

This project has been previously discussed at the 11/20/2013, 2/18/2015, and 9/20/2017 Monthly Natural Resource Agency Coordination Meetings.

Barnstead, #14121 (X-A000(208))

Rick Faul identified the location of the project and noted the limits. He indicated the purpose of the meeting is to provide a project overview of the project prior to submitting a wetland application. Since the application needs to be submitted to allow time for it to be reviewed and approved prior to the project's advertising date in August. The project will reconstruct 1.2 miles of NH Route 28, beginning approximately 1,800 feet south of Colony Drive proceeding north to approximately 550 feet north of Crescent Drive.

The project is a full box reconstruction project, which will widen the existing road, as well as modify the horizontal and vertical alignments. Also, it will reconstruct the North Road/North Barnstead Road intersection by flattening the crest curve. The roadway typical will be widened from an 11 foot lane with one foot shoulders to a 12 lane with four foot shoulders.

The project has been to two Natural Resource Agency Meetings in February 2016 and September 2017. The first meeting in 2016, estimated the project would have 0.5 acres of permanent wetland impacts, and approximately 1 acre of new impervious surface is proposed from the addition of the 4-foot shoulders. The second meeting in 2017 provided options for replacement of the 48" culvert that drains into Half Moon Lake, the existing culvert was installed in the 30's, and overtopped once around 2006. Twin 54's was the preferred option. At the meeting, discussion included the twin 54" pipes did not consider an option for wildlife passage, and eliminating the perch at the outlet of the existing 48" culvert was desired.

Since this meeting, the Department has added a 36" pipe for wildlife passage in addition to the twin 54's. R. Faul explained how the twin 54's pipe invert have been lowered to eliminate the perch and that a 36" pipe with an invert one foot above the 54" pipe inverts has been added for wildlife passage and additional capacity during large rainfall events. As part of the project, six treatment swales for water quality will be constructed.

There are three streams within the project limits (two perennial, and one intermittent). Details on the Tiers of the stream, the size of the watershed to the stream, the existing culvert size for the stream, and the proposed culvert size for each location was provided. Details are as follows:

- Tier 2, 218 acres, Sta. 5074+50, Exist. 36" rcp, Prop. 2-36" RC pipes
- Tier 1, 20 acres, Sta. 5087+00, Exist. 24" rcp, Prop. 1-30" plastic
- Tier 3, 704 acres, Sta. 5112+00, Exist. 48" rcp, Prop. 2-54" RC and 1-36" RC pipes

It was noted the Tier 2 and 3 streams are perennial, and the Tier 1 stream is intermittent. R.Faul explained how the twin 54's pipe invert have been lowered to eliminate the perch and that a 36" pipe with an invert one foot above the 54" pipe inverts has been added for wildlife passage and additional capacity during large rainfall events.

Total wetland impacts are 38,000 SF (Permanent impacts 22,000 SF and Temporary impacts 16,000SF). The linear stream impacts for mitigation are 410 LF. Permanent wetland impact greater than 10,000 SF, and impacts to streams requires a payment to the NHDES Aquatic Resource Mitigation (ARM) Fund in lieu of mitigation.

ARM Fund payments amounts are: wetland payment mitigation is $76,000 and stream payment mitigation is $102,000. Total mitigation cost is $178,000.

No other concerns were mentioned regarding the impacts.

Sarah Large addressed the Departments review of the Stream Passage Improvement Program (SPIP) to mitigate for Barnstead 14121's impacts to streams. She expressed that we anticipated the stream impacts associated with the project would meet the threshold to investigate possible crossing replacement candidates through the SPIP. She advised that she took the first step of the SPIP and performed an initial review of the existing data. Since the project is nearing submitting a wetlands permit application we have a better sense of the final stream impact numbers and know that the stream mitigation calculates out to $101,548.80 currently. Based on this number the Department does not plan to continue to pursue SPIP as a mitigation option since the funds generated would not be enough to replace a crossing nor leverage enough funds to continue to pursue replacing a crossing as permitee responsible mitigation.

The Barnstead Conservation Commission has expressed interest in utilizing the ARM fund payment to purchase a large parcel of land in town for conservation.

Ron Crickard began a discussion about an additional mitigation opportunity with the Barnstead Conservation Commission (CC) and Bear Paw Regional conservation group. The Department is investigating the potential of providing mitigation funds to secure a parcel of land located in Barnstead in conjunction with the Barnstead Conservation Commission and Bear Paw. Ron mentioned that at this time the Department is just seeking input from the resource agencies as to whether this is a viable alternative to an ARM fund payment worth pursuing. Ron introduced Jim Fougere from the Barnstead CC to discuss the specifics of the parcel.

J. Fougere provided information on a 100 acre parcel referred to as the Sellin property. The parcel is located on the Barnstead/Gilmanton town line near Upper Suncook Lake and is near a 180 acre parcel the town of Barnstead current holds. L. Sommer asked if there were wetlands located on the parcel, Jim Fougere replied that there were and a stream that runs through the property towards Upper Suncook Lake. M. Hicks mentioned he had no concerns with the parcel as mitigation for the project if it were to work out. L. Sommer stated that the parcel seems like a good fit for mitigation for the project, but that it would be good to review the parcel in the spring to look for vernal pools. L. Sommer stated that there are many details, such as appraisals, purchase and sales, to work out in a short period of time, J. Fougere acknowledge that they would need to coordinate with the Bear Paw group very soon to get surveys and the

required information. L. Sommer asked who would own the property or easement on the parcel. Jim replied that his preference would be to have Bear Paw be the primary holder and Barnstead be listed as a secondary easement holder.

L. Sommer suggested a meeting be scheduled to discuss the process. The question was asked if the easement would need to be in place at the time the permit application would be submitted for the project. It was mentioned that the permit could be conditioned, allowing NHDOT to finalize the transaction. M. Urban asked if this opportunity falls through, if the permit could be conditioned that the Department would then revert back to an ARM fund payment. L. Sommer said yes. L. Sommer said the budget should be nailed down quickly for this effort.

M. Hicks asked if all the streams on the project were unnamed, R. Faul said yes. M. Urban showed L. Sommer the impacts to the intermittent stream. L. Sommer and G. Infascelli discussed that the impacts look to be more than what would fall under a routine roadway activity, so they would require mitigation.
Amy Lamb noted that the NHB search indicated that the Small Whorled Pogonia and Loon were present within the project area. R. Crickard stated that a site walk of the project did not locate any Small Whorled Pogonia, and that coordination with Kim Tuttle at NH Fish & Game has not been completed. Ron will reach out to Kim about the Loon. A. Lamb noted the proximity of the project to the Loon nesting area and that noise during construction may be a concern.

The US Fish and Wildlife IPAC report noted there were potential for small whorled pogonia and Northern long eared bat within the project limits. Small whorled pogonias were not observed during two site visits, and clearing restrictions are anticipated to protect the bats habitat.

C. Henderson mentioned Fish and Game reallocates money through G&C to purchase properties. R. Crickard indicated this procedure would be new to the Department.
L. Sommer asked how the coordination will work on the potential mitigation opportunity with Barnstead and Bear Paw. R. Crickard asked for an example of a contract that NHDES uses for such opportunities through the ARM grant program.

G. Infascelli discussed impacts to a stream on the previous Barnstead project, the Stockbridge Corner Road 14121D project. G. Infascelli indicated that he has coordinated with DOT on this location previously indicating that stone fill was placed both upstream and downstream in areas permitted as temporary impacts. The Department hoped that the stone would naturally fill in with sediment. G. Infascelli asked if this could be addressed under the project discussed today. Tobey Reynolds said that the Department will take a look at it.

This project has been previously discussed at the 2/17/2016 and 9/20/2017 Monthly Natural Resource Agency Coordination Meetings.

Plaistow-Kingston, #10044E (X-A000(378))
This project entails re-evaluating and updating the preliminary design of previously proposed improvements to a 1.7-mile segment (Contract E) of the NH Route 125 corridor located in Plaistow and Kingston. The 1.7-mile segment is the only remaining segment that has not yet been constructed from a 6-mile project corridor that was previously studied and approved.

Jennifer Zorn, (MJ) provided a brief summary of the project scope, which includes Wetland Delineation of the 1.7-mile segment, Stream Assessment at two crossings of the Little River, NEPA reevaluation, 15%

pre-preliminary design, 30% preliminary design and 60% Slope and Drain design (design is being done by prime consultant, GM2).

She explained that the focus of the NEPA reevaluation is to determine if any new resources are present in the 1.7-mile segment and if impacts to the resources will be altered from what was proposed and presented for the project in the 2005 NEPA Environmental Assessment and previously approved wetland permit.

Wetland impacts may or may not differ from the previously approved NHDES permit (#2004-00763) however, as of the pre-preliminary design phase (15%) she explained that wetland impacts were on track to be less than what was previously approved. Wetland mitigation for this 1.7 segment was previously carried out during the approval process for the entire 6-mile project corridor and the 1.7-mile segment anticipated 1.95 acres of associated permanent wetland impact *(*temporary impacts not calculated to date as the project is in the pre-preliminary design phase)*. It was previously agreed that if impacts were greater than 1.95 acres, then the additional impact would be compensated for by NHDOT in the form of an ARM Fund Payment.

It is possible that work may be required to the existing 48" RCP culvert at Little River which was not previously anticipated or discussed. The agencies agreed that stream mitigation was not part of the mitigation package that was previously approved and this matter would need to be revisited when the design was further advanced and the specific stream impacts were more defined.

Tobey Reynolds inquired whether a mitigation credit could be issued if wetlands impacts were less than 1.95 acres. The consensus of the agencies was that more detailed decisions and information was necessary to determine a response to this matter.

Tobey Reynolds stated that a permit application was anticipated to be submitted in 2022. It was the general consensus that the focus of the next NRACM would address the Stream Rules and mitigation relative to the two proposed stream crossings.

This project has been previously discussed at the 10/18/2000, 1/16/2002, 8/21/2002, 7/16/2003, 8/7/2003, 9/17/2003, and 4/12/2005 Monthly Natural Resource Agency Coordination Meeting.

Lebanon-Hartford, #16148 (A001(154))

This project involves the rehabilitation and widening of the Interstate 89 bridges over the Connecticut River between Lebanon, NH and Hartford, VT. The project was last reviewed at this meeting in August 2018. The purpose of today's meeting is to review proposed design changes related to scour protection and the Vermont bank cut. The NHDES permit application was submitted in November 2018. NHDES requested more information to address mitigation and questions from the Connecticut River Joint Commissions. A response to NHDES has not yet been provided because of recent design-related discussions resulting in design changes that need to be finalized before responding to application questions.

Brian Colburn provided an overview of the project. The two existing bridges will be widened to the middle to provide a single 110'+/- wide bridge deck. The in-fill will require new footings between each of the five pairs of existing piers, four of which are located in the river. This in-fill results in a slight rise in base flood elevation within the regulatory floodway of the river. Additionally, two pairs of piers are classified as scour critical. McFarland Johnson recently completed further analysis to confirm that protection of these piers was warranted. The need for scour protection was confirmed and the footprint of the proposed scour protection was extended 5 feet downstream beyond the originally proposed footprint. The preferred scour protection continues to be A-Jacks concrete armor units. This method results in a more limited

profile than angular riprap, the more common scour protection, which requires deeper excavation for installation. The project originally proposed A-Jacks to be placed on top of the existing river bed. This contributed to the slight increase in base flood elevation.

As originally proposed in the submitted permit application, mitigation for the increase in base flood elevation consisted of a bank cut along the Vermont bank, between ordinary high water and the railroad corridor. However, after further review of the bank detail, concerns arose with the steepness and stability of the proposed slope and its proximity to the railroad. Therefore, opportunities to mitigate the increase in base flood elevation within the project area were explored. It was determined that the impact to the floodway could be eliminated by incorporating two changes: 1) creating a smoother surface along the top of the A-Jacks by infilling the A-Jacks with clean 3" to 6" stone to mimic the roughness of the natural streambed; and 2) embedding the A-Jacks to place them about 6" lower than the existing river bottom. With these changes, the project would result in zero increase in flood elevation and a bank cut would not be needed.

Christine Perron explained that the project team has been coordinating with the NHDOT Construction Bureau, as well as Darrel Elliot and Mark Hemmerlein, on construction means and methods. The water at the piers can be up to 13 feet deep. Installing the A-Jacks within sheet pile cofferdams would increase the cost of the project by approximately $1 million. Other BMPs would be utilized, such as silt booms and turbidity curtain, although these would have relatively limited value given the water depth and velocity. Other measures would be employed to minimize turbidity, such as installing A-Jacks at only one pier at a time and preparing only small areas of the river bed at a time rather than the entire A-Jacks footprint. Despite these measures, it is anticipated that it may not be possible to prevent exceedances of the water quality standards during installation of the A-Jacks. For this reason, NHDOT would like to request approval for a mixing zone for this project.

The river is approximately 500 feet wide and any turbidity impacts could be kept to less than one-third of the channel at any given time. Input is needed on this, as well as on who would prepare a monitoring plan (NHDOT or the Contractor). Also, for safety reasons, NHDOT's preference would be for visual monitoring rather than numerical monitoring, especially during winter months.

Construction duration is expected to be approximately 5 years. It is assumed that the Contractor would construct a temporary trestle in the first year, although it's possible that the Contractor could choose to instead use barges. It is further assumed that the A-Jacks would be installed in the last year of construction as the trestle is removed. However, if a barge is used instead of a trestle, it would be possible for the A-Jacks installation to take place earlier in construction. Because NHDOT does not dictate means and methods to the Contractor, preparing a turbidity monitoring plan prior to construction would be challenging and NHDOT would like to discuss the possibility of placing that requirement on the Contractor as a condition of the permit.

Lori Sommer asked if Vermont was part of the discussion regarding the Vermont bank cut, and if other locations for the bank cut were considered. VTrans and VT resource agencies have reviewed project plans. Bob Juliano noted that the decision to eliminate the bank cut was made because of concerns with slope stability. B. Colburn noted that the bank cut needs to be at the bridge because the impact is to the limits of the floodway rather than to actual flood storage elsewhere along the river.

Gino Infascelli asked about the volume of water displaced by the project. B. Colburn replied that, without embedding the A-Jacks, the project would result in an increase in flood elevation of less than a foot. C. Perron noted that FEMA requires any increase in flood elevation within regulatory floodway to be addressed, either through mitigation within the floodway or by revising the flood maps by going through

the Conditional Letter of Map Revision (CLOMR) process. Getting an approved CLOMR requires buy-in from the impacted communities. Given the history of flooding in this area of Lebanon, and the existing development along the river, a decision was made early in the project that a CLOMR for any increase in flood elevation was not a desirable option. Mike Hicks commented that CLOMR process is time consuming, taking at least a year.

M. Hicks asked about the need for a Coast Guard bridge permit. C. Perron replied that a bridge permit is not required. M. Hicks further commented that the Corps would not be taking Section 10 jurisdiction but would require a Section 404 permit. C. Perron noted that authorizing the project under the NH and VT General Permits had been previously discussed and was still the assumed permitting mechanism. M. Hicks stated that public concern could elevate permitting to an Individual Permit, and C. Perron responded that, to date, there have been no concerns raised by the public.

M. Hicks stated that he would need more information regarding a mixing zone before making any decisions.

G. Infascelli commented that he did not have the authority to make decisions regarding mixing zone issues, and that discussion with Greg Comstock would be required. Sarah Large noted that discussion with Greg was planned; however, discussing at this meeting was also warranted.

L. Sommer asked if there were similar sites where A-Jacks were embedded successfully. Issues related to the recent Tilton-Northfield project were briefly discussed; it was noted that the site was nothing like Lebanon-Hartford because of different substrate, the use of a causeway, and shallower water. A-Jacks were installed in deep water in the Connecticut River for the Littleton-Waterford project.

Carol Henderson voiced concern that the Contractor would understand these issues and know how to minimize turbidity. Shaun Flynn commented that every contractor is familiar with these issues. Ron Crickard added that every contractor needs to demonstrate that they will meet water quality standards and permit conditions.

G. Infascelli asked if the new piers would have drilled shafts. B. Colburn replied that the new concrete pier footings would have driven piles and would be constructed within cofferdams.

L. Sommer asked to be provided with a narrative that summarized how the decision regarding the CLOMR process was reached.

Christine Perron provided a summary of revised impacts that accounted for the 5-foot extension of the A-Jacks footprint.

No change: Permanent wetland impacts: There will be no wetland impacts in NH.
No change: Permanent bank impacts from drainage work: 623 sq ft (59 linear ft)
No change: Permanent channel impacts from the new footings: 3,117 sq ft (158 linear feet)
REVISED: Permanent channel impacts from scour protection: 23,976 sq ft (296 linear feet)
REVISED: Total permanent impacts for project: 27,716 sq ft (513 linear feet)
No change: Total temporary: 95,147 sq ft (565 linear feet)
No change: Temporary impacts to Vermont side of the river: 385 sq ft
REVISED: Total temporary and permanent waterway fill: 0.79 ac

L. Sommer confirmed that the A-Jacks as now proposed could still be considered protection of existing infrastructure since the scour protection would be needed in the same footprint as proposed even if the new pier footings were not proposed.

G. Infascelli noted that someone from the Lebanon Planning Department contacted him to ask if a decision had been made about suitable mitigation. C. Perron stated that the parcel of land that the City asked DOT to consider for protection was reviewed by Marc Laurin and the Department determined that it was not suitable for further consideration as mitigation for this project. This decision would be addressed in the additional information that will be sent to NHDES.

C. Perron noted that the project is scheduled to advertise in August of this year.

This project has been previously discussed at the 5/21/2014, 11/19/2014, 2/17/2016, 2/15/2017, and 8/15/2018, Monthly Natural Resource Agency Coordination Meetings.

MWVTA- Recreation Path - Conway, #41755 (X-A004(743))

1. BP presented the project background and overview:
    a. This project is a 2.8-mile long, 10-ft wide, paved, ADA-Accessible recreational and non-motorized pathway beginning at Cranmore Resort in North Conway running south to Hemlock Lane, near to Wal-Mart and the Redstone Quarry area.
    b. The ultimate goal is for the pathway to run from Bartlett Village to Fryeburg, Maine, and connect to their Mountain Division Rail Trail.
    c. The Mount Washington Valley Trail's Association has been looking at sites and applying for grants for more than a decade.
    d. The project is becoming a reality as a result of being selected for a CMAQ grant and NHDOT agreeing to locate the pathway within the Conway By-Pass corridor.
2. BP reviewed the route:
    a. The northerly end will begin at Cranmore Resort and head south over Cranmore's land for a distance of 0.3 miles. At the start, the pathway will cross over a small tributary (Tier 2) of Kearsarge Brook and its associated wetland using an 88-lf boardwalk. After a short distance, the path will climb up the foot of Mt. Cranmore to minimize impacts to wetlands seeping from the mountain's toe. Several forested wetlands will be crossed.
    b. The pathway will then enter the Conway By-Pass corridor and follow along the lower flank of Mt. Cranmore to Thompson Rd for 0.4 miles. Several more forested wetlands will be crossed as well as two Tier 1 intermittent streams and Artist's Brook (Tier 3). A 48-lf bridge is proposed to span Artist's Brook.
    c. The pathway will cross Thompson Road and follow the southerly side of it for a couple of hundred feet where it will leave the Conway By-Pass corridor. It will then turn south and enter the Pudding Pond Conservation area and follow a gravel logging and recreation road for 800 feet. Two culverts will be replaced including an existing 36" culvert over a Tier 2 perennial stream and a smaller secondary culvert over a Tier 1 intermittent stream.
    d. The pathway will continue through the Pudding Pond Conservation area for 0.4 miles with no additional wetland or streams crossing until it reaches the Pudding Pond outlet. A 144-lf boardwalk is proposed to span the pond outlet (Tier 3).
    e. Within a couple of hundred feet of crossing the pond outlet, the pathway will cross a seldom-used scenic railroad line (owned by NHDOT) and re-enter the

Conway By-Pass corridor. From here it will roughly parallel the North-South Road for 1.5 miles to its end at Hemlock Lane. However, shortly after crossing the railroad, the pathway runs along the edge of a 16,500-sf low/medium value vernal pool. Because the existing steep road embankment extends into the edge of the vernal pool, approximately 1,260 sf of the vernal pool will be filled. No other wetland crossings are proposed in this 1.5-mile section of the pathway.

3. BP summarized the impacts as follows:
   a. Approx. 7,520 sf of wetland & ephemeral stream impact (later updated to 7,780 sf)
   b. Three Tier 1 intermittent stream crossings (all unnamed)
   c. Two Tier 2 perennial stream crossings (trib. to Kearsarge Brook and unnamed)
   d. Two Tier 3 stream crossings (Artist's Brook and Pudding Pond outlet)
   e. One 1,260 sf filling of vernal pool
   f. Total impact = 13,940 sf (later updated to 14,200 sf)

4. Discussion of vernal pool impact minimization:
   a. BP stated that he evaluated installing a retaining wall along the edge of the vernal pool to minimize the impact requested during a previous DES preapplication meeting. BP found that the permanent impact to the vernal pool would be reduced from approx. 1,260 sf to approx. 260 sf, but there would be an additional 330 sf of temporary impact during the wall construction.
   b. BP state that the cost of such a wall and associated fencing would be approx. $35,000 which equates to $35/sf for the reduced permanent impact, or $55/sf if the temporary impacts are included.
   c. GH stated that the vernal pool is low to medium and is already impacted by the adjacent North-South Road. BP added that the vernal pool was created by the railroad grade which blocks the wetland outlet.
   d. Upon BP's asking, MH indicated that constructing the retaining wall is not warranted since the impact will not be completely eliminated by it. MH will send us the vernal pool guidance document.
   e. LS said to use the ACOE vernal pool mitigation guidance to calculate the impact.

5. BP reviewed the alternatives used to finalize the pathway location and alignment:
   a. Many general route locations were considered over the past decade. The goal was to connect community hubs to facilitate non-motorized transportation. Unfortunately, the previous locations were ruled out because one or more landowners would not allow the pathway to cross their land.
   b. DOT's approval to use the Conway By-Pass corridor, coupled with an easement from Cranmore Resort and the town agreeing to the use of the Pudding Pond Conservation area, allows for the continuous pathway.
   c. The precise pathway alignment was selected after wetlands, and historical resources were identified along the corridor. The route was selected to avoid and, where not possible, minimize wetland impacts. Victor Bunker completed a Phase 1A/1B archaeological assessment and steered the pathway away fromcultural resources.
   d. BP and GH left the meeting with the understanding that the avoidance and minimization requirements have been met, and the alternative analysis is complete.

6. Misc. discussions during the presentation:

a. For mitigation, GH stated that he is looking into the possibility of increasing the conservation easement on portions of the Marshall Conservation Area. GH stated that the existing town-controlled conservation measures are bare-bones and we are looking into increasing them and having the USVLT hold them as a third party.
b. BP mentioned that the Artist's Brook bridge would span the stream banks with no earthwork below the top of the bank. The only impact will be from the bridge's shadow. MH said that coordination with the National Marine Services is needed here.
c. CH asked if the pathway would have curb since they would be an obstruction to turtles. BP said that none are proposed. (BP thought to himself that a wall along the vernal might be an obstruction if required to install it.)
d. Upon questioning, BP indicated that we are beginning to prepare the NEPA document.
e. Upon questioning, BP stated that the USF&WS IPAC was completed. GH said that it revealed the Northern Long-Eared Bat and the Small Whorled Pogonia. GH said that he reviewed the portions of the site that are suitable habitat for the Pogonia and found none. GH said that we expect to undertake the clearing activities outside of the bat nesting period. MH said that the timing of clearing is limited only within the wetlands impact areas. Upon questioning, BP stated that the NH NHB's Data Check tool was updated and AL issued a letter indicating that there are no concerns.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.